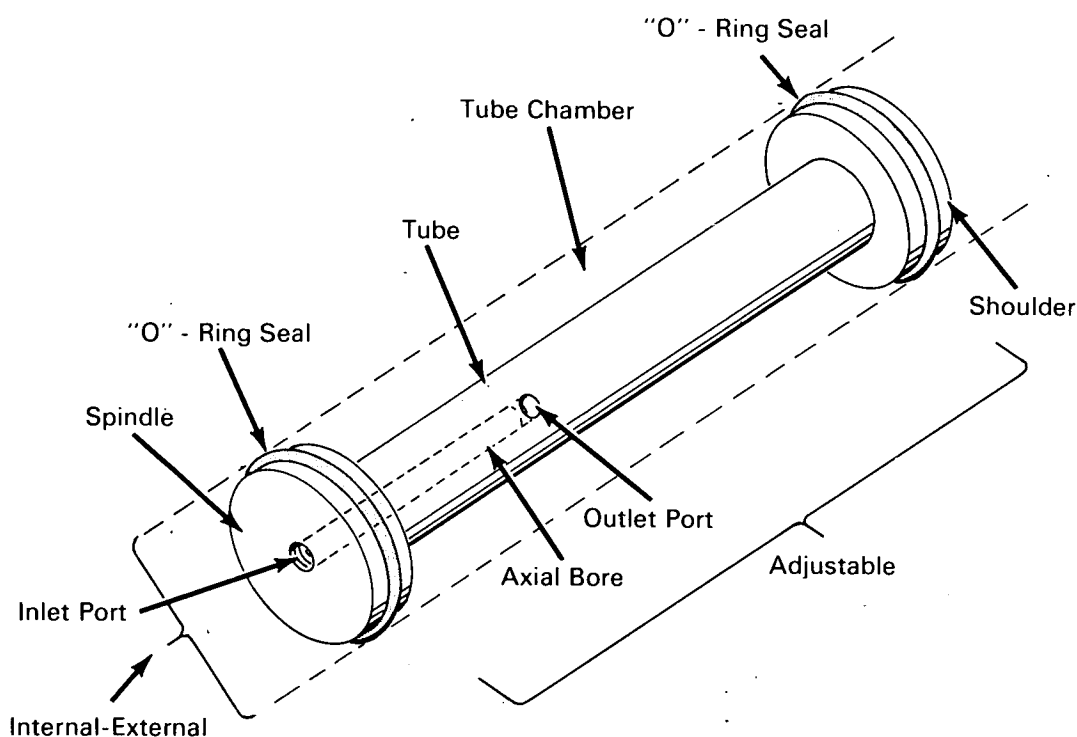


NASA TECH BRIEF



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Insertion Device for Pressure Testing



In testing piping and tubing for pressure or vacuum capacities, previous methods have usually involved capping or sealing of at least one end in a semipermanent fashion. This requires brazing, welding, threading, etc., with subsequent machining of the item to restore it to its original condition.

A test device capable of introducing either pressure or vacuum into the tested item is insertable into the item where it secures itself into position and requires no external support. The unit has an operating range

from zero to 25,000 psig and to any vacuum level that available equipment can reach.

The unit consists of a spindle arrangement provided with an axial bore at one end, terminating in an outlet port at the center of the spindle. Two shoulders, one at each spindle end, have annular grooves machined in them to retain air tight seals in the form of "O" rings. The spindle is inserted into the portion of tubing to be tested and pressure (or vacuum) is applied at the inlet bore, operating, by means of the

(continued overleaf)

axial bore and its outlet port, upon the tube chamber entrapped between the two "O"-ring seals.

Notes:

1. This is a production item, inexpensive to fabricate and an excellent time saver. Many sizes have been fabricated and are in use.
2. Documentation for the innovation is available from:

Clearinghouse for Federal Scientific
and Technical Information
Springfield, Virginia 22151
Price \$3.00
Reference: TSP69-10061

Patent status:

No patent action is contemplated by NASA.

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